

**City of Roanoke
Public Works Service Center
Standard Operating Procedure**

Subject: Ozone Depleting Substance (ODS) Management – Facilities Management	Revised: 9/27/19
Purpose: To ensure the lawful handling and disposal of ozone depleting substances (ODSs) associated with City of Roanoke properties. <i>Regulated under 40 CFR Part 82.</i>	

Responsible Party/ies: All HVAC Technicians - Facilities Management Division

Performance Frequency: Equipment inspections are done annually as part of planned maintenance; otherwise, service is based on equipment failure or poor performance.

Documentation: Shall be retained on file in Facilities Management and made available for review upon request.

- Copies of Technician Certifications for all HVAC technicians (*City employees and outside contractors*)
- List of City owned ODS equipment and location
- Refrigerant Recovery Tracking Form

Training: Management and/or Supervisors will cover this SOP with all newly hired and/or temporary personnel within their first 60-days of employment.

- **All personnel who perform this SOP must be licensed Certified Technicians**

Trainees must complete the signature section below and a copy of the signed SOP shall be sent to Environmental Management.

Definition: Ozone Depleting Substances (OSDs): include gaseous compounds used primarily for air conditioning, refrigeration, and fire suppression, such as: chlorofluorocarbons (CFCs) and other so called halogenated compounds.

Procedure:

1. Facilities Management will provide handbooks for all Certified Technicians that outline the established EPA regulations for the handling, use and disposal of ODS. A copy of this handbook will be maintained in the Facilities Management office.
2. Equipment List and Location will be continually updated as necessary to ensure an accurate account of equipment is maintained at all times.
3. Refrigerants Recovery Tracking Form will be completed and a copy shall be emailed to envmgt@roanokeva.gov.
4. Facilities Management will ensure that outside contractors are HVAC certified prior to allowing work to be conducted on City Owned Equipment.

Trainee Name: _____ **Signature:** _____

Date: _____

Send completed form to Environmental Management at: envmgt@roanokeva.gov.

Refrigerant Recovery Tracking Form

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Owners of equipment with charges greater 50 pounds are required to repair leaks in the equipment when those leaks would result in the loss of more than a certain percentage of the equipment's charge over a year. For the commercial and industrial process refrigeration sectors, leaks must be repaired when the appliance leaks at a rate that would release 35% or more of the charge over a year. For all other sectors, including comfort cooling, leaks must be repaired when the appliance leaks at a rate that would release 15% or more of the charge over a year. The trigger for repair requirements is the *current leak rate* rather than the total quantity of refrigerant lost. To track leak rates, owners of air conditioning and refrigeration equipment with more than 50 pounds of charge must keep records of the quantity of refrigerant added to their equipment during servicing and maintenance procedures.

Owners are required to repair leaks within 30 days of discovery. This requirement is waived if, within 30 days of discovery, owners develop a one-year retrofit or retirement plan for the leaking equipment. Owners of industrial process refrigeration equipment may qualify for additional time under certain circumstances. For, example, if an industrial process shutdown is required to repair a leak, owners have 120 days to repair the leak. **Source: Clean Air Act Section 608**

Complete the following Steps:

1. Equipment Location: _____
2. Equipment Description: _____
3. Work Order # _____ Model # _____ S/N# _____
4. Refrigerant: _____ Refrigerant Recovered: _____ Lbs. Recovered Refrigerant Reused: _____ Lbs.
5. (A) New Refrigerant Added: _____ Lbs. (B) Full System Charge: _____ Lbs.
6. Date Refrigerant was last added: _____ (C) Number of days since refrigerant was last added: _____
7. Leak Rate = $[(A) \div (B)] \times [365 \div (C)] \times 100 =$ _____ %
8. Oil Recovered: _____ oz./gal. Amount of oil reused _____ oz./gal. New oil added: _____ oz./gal.
9. Amount of contaminated refrigerant returned to shop: _____ oz./gal.

10.	Cylinder #: _____	Beginning Weight: _____	Returned Weight: _____
	Cylinder #: _____	Beginning Weight: _____	Returned Weight: _____
	Cylinder #: _____	Beginning Weight: _____	Returned Weight: _____

11. Repaired Leak (Y/N): _____ If no, scheduled repair date: _____
12. Initial Verification Test Date: _____
☐ Soap bubble ☐ Electronic leak detector ☐ Ultrasonic leak detector
☐ Pressure ☐ Fluorescent dye & black light ☐ Infrared ☐ Halon Refrigerant gas detection ☐ Vacuum
13. Follow-up Verification Test Date: _____
☐ Soap bubble ☐ Electronic leak detector ☐ Ultrasonic leak detector
☐ Pressure ☐ Fluorescent dye & black light ☐ Infrared ☐ Halon Refrigerant gas detection ☐ Vacuum
14. Detailed Description of Repairs / Work: **(Note: This section must be completed)**

HVAC Technician: _____ Signature: _____ Date: _____

DISPOSITION OF RECLAIMED OR RECOVERED REFRIGERANT

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Name of Vendor refrigerant sold to delivered to: _____

Address of Vendor: _____

Vendor's EPA Certification /License #: _____

Amount recovered / or reused (See page 1, #4): _____

Type recovered/or reused (See page 1, #4): _____

Name of receiving technician (print name): _____

E-mail a copy of completed form to envmgt@roanokeva.gov.